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## **THE INFLUENCE OF URBAN LIFE ON URBAN FORM OF RESIDENTIAL UNITS**

**Abstract:** *The article reveals the results of the research on morphological development of residential planning units (micro district, neighborhood, community) based on changes of land use and plan analysis. Morphological processes of residential planning units' transformation and creation of new morphotypes accompany the development of modern cities. The article presents the newest versions of residential planning units based on symbiosis of their original concepts*

**Keywords:** *morphogenesis, residential planning units, market colonization, adaptive redevelopment.*

### **Introduction**

The urban life in certain way influences generating the urban form throughout the development of mankind. Appearance of new activities, scientific and technical advances, and in some cases fashion as well as emergence of new subcultures certainly affects the urban form. In particular, they affect residential units. The hypothesis of Robert Park (Chicago School of Social Ecology) is as relevant today as it was a hundred years ago. It says that the city is the result of dynamic processes of human activity.

Physical degradation and social contradictions of the early 21<sup>st</sup> century challenge for scholarly criticism, provoking the search for functional solutions, such as adaptation of the residential environment in its planning to the modern dynamic processes of the population activity.

Problems of social stratification, development of management systems in housing and utilities services, integration of production activities in residential structures lead to the development and emergence of new planning forms as well as modification of the morphology of residential areas.

The latest planning structure types of the residential environment, different in content and structure, penetrate in the world architecture and urban planning.

This article analyzes different categories of dynamic processes of urban life and their reflection on the form of residential units. Three of them are distinguished:

- socio-economic processes ("People and money"),
- socio-demographic dynamic processes of the population activity ("People and function")
- culturological phenomena reflecting the urban form ("Culture and territory")

In this article considered the international experience in the development of residential planning units, paying special attention to the social and spatial transformation of microdistricts being the most widespread form of housing in Russian cities (Fig. 1).

### **Socio-economic processes**

Certain residential units are formed in modern cities through economic and cultural criteria because of growing social stratification and socio-territorial segregation of those cities. New

residential units, such as “gated communities” and “precincts” are formed. They present closed, and as a rule, controlled residential areas of a certain enclave.

The territory of residential unit is gated by several characteristics:

- by spatial characteristics, it is divided into external and internal environment (as a rule, the access to the internal environment is closed);
- by socio-economic characteristics - it is divided by market value of housing.

G. Ptichnikova outlines that “gated communities” have new forms, nevertheless, they have for long been known in the history of urban planning. Referring to a British sociologist Z. Bauman, she points out that nowadays residents of “gated communities” demand social isolation: “no neighbors” serves as a precondition for living in local isolation, by providing special security to those people, their homes and “playgrounds”. As a result, practically every major Russian city has the areas of this kind. But in fact “gated communities” integrated into the city (Fig.2,3).



Figure 1. The map of microdistrict of Krasnoyarsk

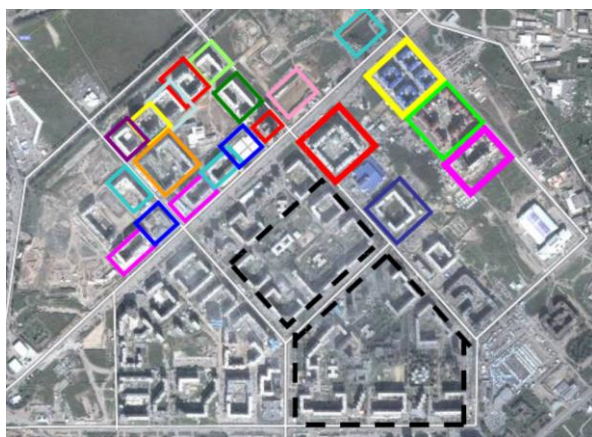


Figure 2. The map of “gated community” inside the city



Figure 3. Close residential quarter “Gorodok” in Krasnoyarsk

For example the development of Krestovsky Ostrov in St. Petersburg shows an example of such process – it is like “a city in the city”. Residential complexes “Four Horizons”, “Privilege”, “House by the Sea”, “Parade Quarter” and others have clear characteristics of isolation and gating. Privacy, privilege and enhanced comfort are the main characteristics of these residential complexes.

The idea of socio-property mixing shows the modern approaches to the formation of socially sustainable city. According to the studies of K. Kiyanenko, the idea of socio-property mixing was first promoted and tested in the middle of the 19<sup>th</sup> century in the UK. In our country the idea of “mixed housing” appeared in the late 1970s. There is a range of legislative, regulatory, administrative, fiscal and other measures ensuring the development of different archetypes of housing (within a microdistrict/neighbourhood/community) which lay behind mixing policy at the present stage of social development. As a result, a mixed residential unit includes diverse social stratum of society.

K. Kiyanenko notes that there are special laws, such as Housing Act of Canada or Fair Housing Act of the USA, working almost all over Europe and North America. Mixing is fixed in those laws as one of the principles of accommodating. The researcher also points out that the “income-mixed” residential complex “Navy Green” has been built in New York since 2010. Meanwhile, European architects develop such high quality standards of social housing that they are attractive for many clients of free market. The author gives a number of examples of mixed residential units (income-mixed residential units designed by R. Erskine in the UK, such as “Millennium Village” (London), “Ballymun” (Dublin, 2013), the city of Almere and Kattenbrouwer district in Holland). Socially integrated quarter was built in Moscow, combining municipal and commercial housing under the same façade.

### **Functional-planning inversions due to the integration of production activity into the living environment**

Dynamic lifestyle of the early 21<sup>st</sup> century dictates new criteria for the formation of residential areas in the modern city. Such categories as “mobility” and “accessibility” serve as the main ones in ensuring the normal functioning of the city. The ideas of “mix-use development”, urban villages’ concept, transit-oriented development, core of urban growth, etc. are developing nowadays.

The main task of the development strategies of many residential units is “saturation” of those units with multifunctional zones of providing diverse services and new workplaces. Previously unified residential housing of the Soviet period is being filled with new workplaces, facilities of small and medium businesses (Fig.4). Moreover, the ideas for the development of local economy are implemented in the plans of the East Germany reconstruction. The idea is that the business taxes form the local budget of the microdistrict, which fundamentally changes relations in the territory and the form.

Foreign countries have started introducing the concept of combining commercial-active zone with transportation hub since the early 21<sup>st</sup> century. The idea of Transit-Oriented Development (TOD) is increasing the role of public transport by introducing it into the center of the commercial-active zone of residential unit instead of satisfying utilitarian deficit of parking lots. The transfer hub is filled with public service providers and recreational facilities. In the US, TOD system is considered to be a concept diametrically opposed to Traditional Neighborhood Development (TND), where public transport stops are located at the boundaries of planning unit. In a transit-oriented area, the center is filled with relatively dense housing in a radius of 400-800 m in the pedestrian access zone. The density of housing decreases as the distance becomes greater. Transit-Oriented Development (TOD) was introduced in many states of America (Fig. 5).

One of the stages of residential units’ evolution was market colonization of public spaces. Pedestrian zones and public cores with various facilities of attraction start being formed in the territory of residential units.



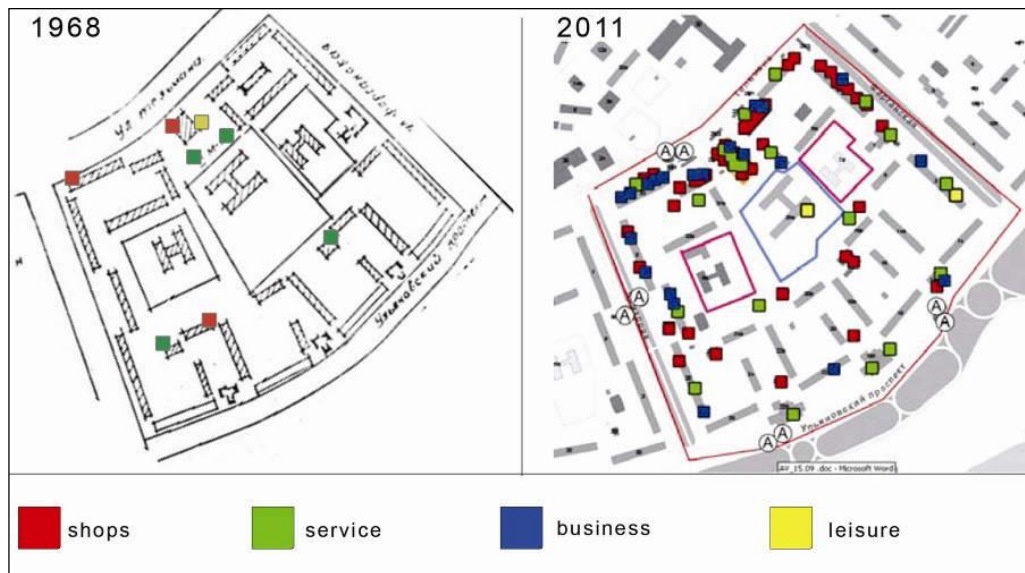


Figure 4. Mixed residential unit



Figure 5. The chain of city centers of Krasnoyarsk

The existing Russian microdistricts are being filled with open space markets; meanwhile, planning schemes start to include versatile public spaces. For example, naturally developed commercial areas in Russian and German microdistricts caused redistribution of pedestrian and traffic flows due to the changes in the system of transport regulations and pedestrian pathways priority. The concentration of functions is formed along the highways of the city importance, especially near public transport stops. The ideas of transit-oriented development of residential areas gradually become a practice. Regional development strategies of Canada, the United States and Sweden base on “strong and advanced community” with the development of multifunctional centers – areas for activities of social communities, which are assigned with specific planning boundaries. It is assumed that professional activity within residential areas, creation of additional workplaces and personal identification of an active citizen will lead to economic and social stabilization of society and improve the quality of the habitat.

### **Culturological phenomena which impact the urban form (Culture and territory)**

At the same time, cultural diversity of the city is understood as specific variations of different “topics”, which is reflected in the formation of urban environment, in architecture and urban planning. In the early 21<sup>st</sup> century the residential environment was affected by such fundamental issues as joint bringing up of children, religious identity of the community and social events holding.



Figure 6. Microdistrict “Aeroport”

The Russian microdistricts still preserve the status of the microdistrict as the space of social guarantees. Almost every unit has its own school and kindergarten, which certainly connects the community today.

Special attention should be given to the dynamics of urban gardening. Nowadays the formation of urban gardening culture is noticed in the world’s major cities. It occurs within residential planning units as one of the modern forms of dwellers’ recreational activity. There are gardens, dachas. For instance, public gardens are created in the living environment; open public spaces in major cities are rented out for action groups of citizens for gardening; territories of municipal and commercial offices are improved not only for gardening but as well for educational and commercial purposes.

Pubic gardening in open spaces becomes more and more popular and, say, “on-trend” among the youth. The form of residential planning units is changing under the influence of this tendency (Fig.7).

This study allows us to formulate the main trends in the development of residential planning units. The trends are following: a shift from the functionalist modernism; complication of morphological structure; redefining the nature and content of public spaces; the development of residential planning units as a socio-administrative and microeconomic element of a city, forming the planning development policy, both for residential planning units and settlements in general.



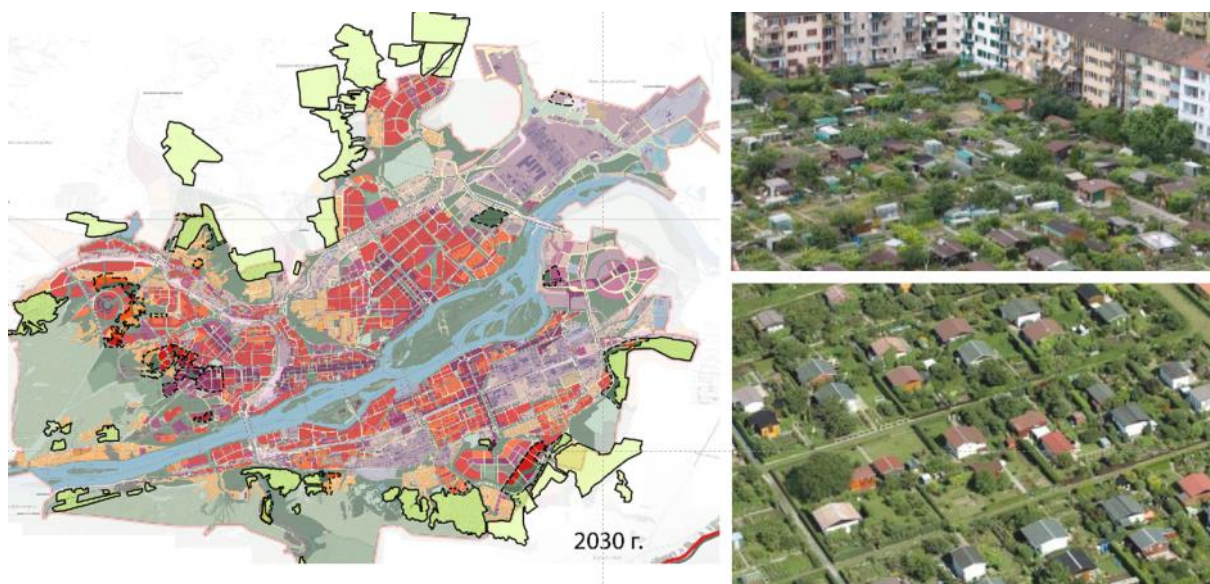


Figure 7. The map of dacha areas of Krasnoyarsk

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